

Editorial: ISO 14043

ISO 14043: Environmental Management • Life Cycle Assessment • Life Cycle Interpretation

Henri Lecouls (Convenor, ISO TC 207/SC 5, WG 14043)

Corresponding address: Dr. Ing. Henri Lecouls, 14 av Beauregard, F-69230 Saint Genis Laval, France

The ISO standard 14043 is the fourth standard in the "family" which was launched six years ago by subcommittee 5 of the ISO Technical Committee 207 in order to reach an international consensus on the state of the art for conducting Life Cycle Assessment (LCA) studies.

In November 1993, the writing of the four standards of the "family" was started simultaneously by different working groups, namely:

- 14040 = General principles and framework
- 14041 = Goal and scope definition, inventory
- 14042 = Impact assessment
- 14043 = "Improvement" (not interpretation)

This division of LCA methodology into successive phases was directly inspired by the SETAC "Code of Practice" which was the most authoritative publication to be referred to. According to this "Code of Practice" the earlier title of 14043 was "Improvement" and the working group spent some meetings in order to consider the improvement of LCA's. "... After lively discussions, in liaison with the colleagues who were writing the 14040 standard, it became evident that the improvement of a product or a service along his Life Cycle is not simply a matter of LCA. In the real life, if a decision maker has to decide on an improvement for a product or a service, he shall taken into account the marketing, economic, technical ... feasibilities simultaneously with the environmental recommendations made by the LCA practitioner."

The consequences of this discussions were to change the title of 14043 from "Improvement" to "Interpretation" and to draw, in the 14040 standard, Fig. 1 which clearly shows that "product improvement" is an application among others, outside the boundaries of LCA.

After this clarification, the writing of 14043 draft was performed by the working group in a very cooperative spirit with contributions of 20 to 30 experts from about 20 countries.

Two major features form the background of 14043 standard:

- Not to lose the findings which can be directly drawn from the Inventory. The results from the Inventory (i.e. inputs and outputs) are more complete and more factual than the results from the Impact assessment (i.e. impact category indicators) who involve some levels of sophistication. For this reason, 14043 standard recommends to base the Interpretation process on the inputs and outputs from the Inventory and not only on the impact category indicators.
- To establish confidence in the results of the LCA study, by reference to the Goal and scope definition: are the results of the study a real and nonbiased answer to the questions

asked by the commissioner? A consequence can be to reformulate or to modify the goal of the study if the Interpretation highlights that the earlier goal is not fulfilled (see feedback arrows in Fig. 1).

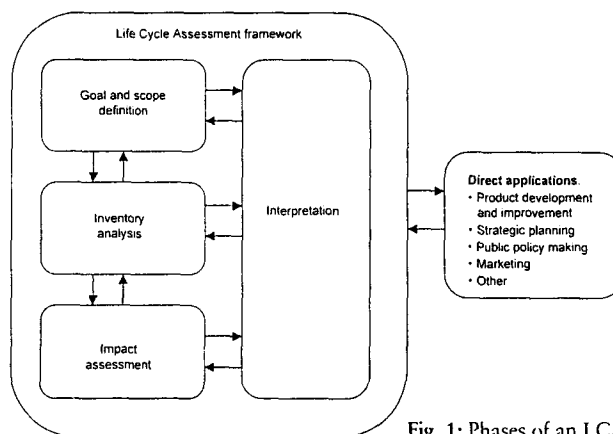


Fig. 1: Phases of an LCA

The participation of delegates from countries which were less involved in LCA activities than European regions - especially from Far East and South America - provided very positive contributions, e.g.:

- To improve the terminology by asking constantly for precise, non ambiguous terms and definitions; for example, European experts were satisfied by the use of 2 or 3 synonyms for the same concept; but those from Far East were not and they were right!
- Their constant demand for examples and their insistence of how to proceed with the Interpretation procedure. This demand was agreed by the working group and a lot of illustrative and clear examples was provided by a European expert!

As a consequence, the 14043 standard will be directly published including an informative annex with illustrative examples of the proposed procedure.

After a positive vote in spring 1999, the ISO Draft (DIS) 14043 received in Seoul, June 1999, some small modifications according to the remarks which accompanied the vote. Now, the final ISO Draft (FDIS) is submitted to a final ballot of standardisation institutes and will be published in the first half of 2000.

This standard is short, clear and illustrated with significant examples. The aim of the working group was to demonstrate that the LCA interpretation can be done simply, by referring essentially to common sense: this aim is fulfilled.